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REMARKS

By this amendment, Applicants have amended the claims to more clearly define their invention. In particular, claims 2, 5, 11 and 13 have been amended to be independent form by including therein all of the limitations of claim 1 (without reference characters), to which claims 2, 5, 11 and 13 previously depended. Claims 1, 2 and 4-6 have been amended to remove reference characters therefrom. Claim 1 has also been amended to recite the step of deducing the cuttings formation factor from the previous measurements includes deducing the cuttings formation factor from the previous conductivity measurements and known conductivities of the first and second electrolyte solutions. See, e.g., page 9, line 6 et seq. of Applicants' specification.

Claim 10 stands rejected under 35 U.S.C. 112, first paragraph, the Examiner alleging the specification fails to provide an enabling disclosure for the subject matter of claim 10. Applicants traverse this rejection and request thereof.

The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the application coupled with information known in the art without undue experimentation. *U.S. v. Telectronics, Inc.* 857 F.2d 778, 785, 8 USPQ 2d. 1217, 1223 (Fed. Cir. 1988). *Manual of Patent Examining Procedure (MPEP)* §2164.01.

Applicants' disclosure clearly describes how to make and use the invention set forth in claim 10 implementing techniques resulting from the

mean field theory at page 10, line 3 *et seq.* The disclosure refers to information known in the art, i.e., the Berryman and Bruggeman publications cited at page 10, lines 6-9 of applicants' specification. The Berryman publication has been provided to the Examiner for his review with an Information Disclosure Statement filed under separate cover on even date. Based on this, it is submitted one reasonably skilled in the art could make or use the invention from the disclosures in the application coupled with information known in the art without undue experimentation. Therefore, claim 10 is supported by an enabling disclosure.

Claims 1, 3 and 4 stand rejected under 35 U.S.C. 103 as being unpatentable over U.S. Patent No. 4,926,128 to Givens in view of U.S. Patent No. 2,583,284 to Wyllie et al. Applicants traverse this rejection and request reconsideration thereof.

The rejected claims relate to a method of determining the formation factor of an underground zone from drill cuttings taken to the wellbore surface, wherein a device including a cell suited to contain cuttings and provided with electrodes connected to a device for measuring the conductivity of the cell content is used. The method includes at least the stages of cleaning the cuttings before setting them in the cell, filling the cell with a first electrolyte solution of known conductivity so as to saturate the cuttings with this first electrolyte solution, measuring the global electrical conductivity of the cell with the content thereof, discharging the first electrolyte solution remaining between the cuttings from the cell, filling the cell with a second electrolyte solution of known conductivity, determining the global electrical

conductivity of the cell containing second electrolyte solution and the cuttings saturated with first electrolyte solution, and deducing therefrom the cuttings formation factor from the previous conductivity measurements and known conductivities of the first and second electrolyte solutions.

The Givens '128 patent discloses a method for utilizing measured resistivities of porous rock under differing fluid saturations to identify fluid distribution equilibrium. This patent discloses that resistivities are measured for a plurality of subsections of a porous rock following a fluid injection that alters the fluid saturation throughout the porous rock. The measured subsection resistivities are compared to identify an equilibrium in the altered fluid saturation throughout the porous rock when there is a fixed relationship between the measured subsection resistivities. Following the detection of fluid saturation equilibrium, the resistivity of the porous rock is measured. More particularly, the patent discloses that the porous rock samples used are core samples of a porous rock.

The Givens '128 patent measures resistivities of core samples, and does not disclose using drill cuttings as presently claimed. Moreover, the Givens '128 patent discloses neither the step of discharging the first electrolyte nor the use of electrolyte solutions with known conductivities as presently claimed.

The Wyllie patent discloses various methods for determining the formation factor from conductivity measurements carried out on drill cuttings. However, these techniques are very restricting on an experimental plane and the measurements relatively long to obtain. Moreover, the Wyllie patent

discloses neither the step of discharging the first electrolyte nor the use of electrolyte solutions with known conductivities as presently claimed.

Therefore, even assuming, *arguendo*, one of ordinary skill in the art would have combined the teachings of Givens '128 and Wyllie, even the combined teachings would not have suggested the presently claimed method, including step of discharging the first electrolyte or the use of electrolyte solutions with known conductivities, as presently claimed. Therefore, the presently claimed method is patentable over the proposed combination of Givens '128 and Wyllie.


Applicants note the indication of allowable subject matter in claims 2, 5-9 and 11-14.

In view of the foregoing amendments and remarks, favourable reconsideration and allowance of all the claims now in the application are requested.

Please charge any shortage in the fees due in connection with the filing of this paper, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (Case: 612.45519X00), and please credit any excess fees to such deposit account.

Respectfully submitted,

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